

CLMPTO

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RH

Claims 1-10 are cancelled.

11. (Amended) A method to estimate the volume fraction of asphaltene aggregates, ϕ_{agg} , in incompatible petroleum oil and/or refinery process stream mixtures comprising determining difference between I_L , the low-q plateau intensity corresponding to the asphaltene particles, and I_{HS} , the intensity for perfect hard spheres in the absence of aggregation, wherein I_L , and I_{HS} are determined at different volume fractions of mixing, ϕ_m .

12. (Amended) The method of claim 11 wherein the equation to estimate the volume fraction of asphaltene aggregates, ϕ_{agg} , is given by the difference between the measured value of $I_L(\phi_m)$ and the $I_L(\phi_m)$ for perfect hard spheres in the absence of aggregation.

Claims 13-15 are cancelled.